



AEROSPACE STANDARD

AS 971

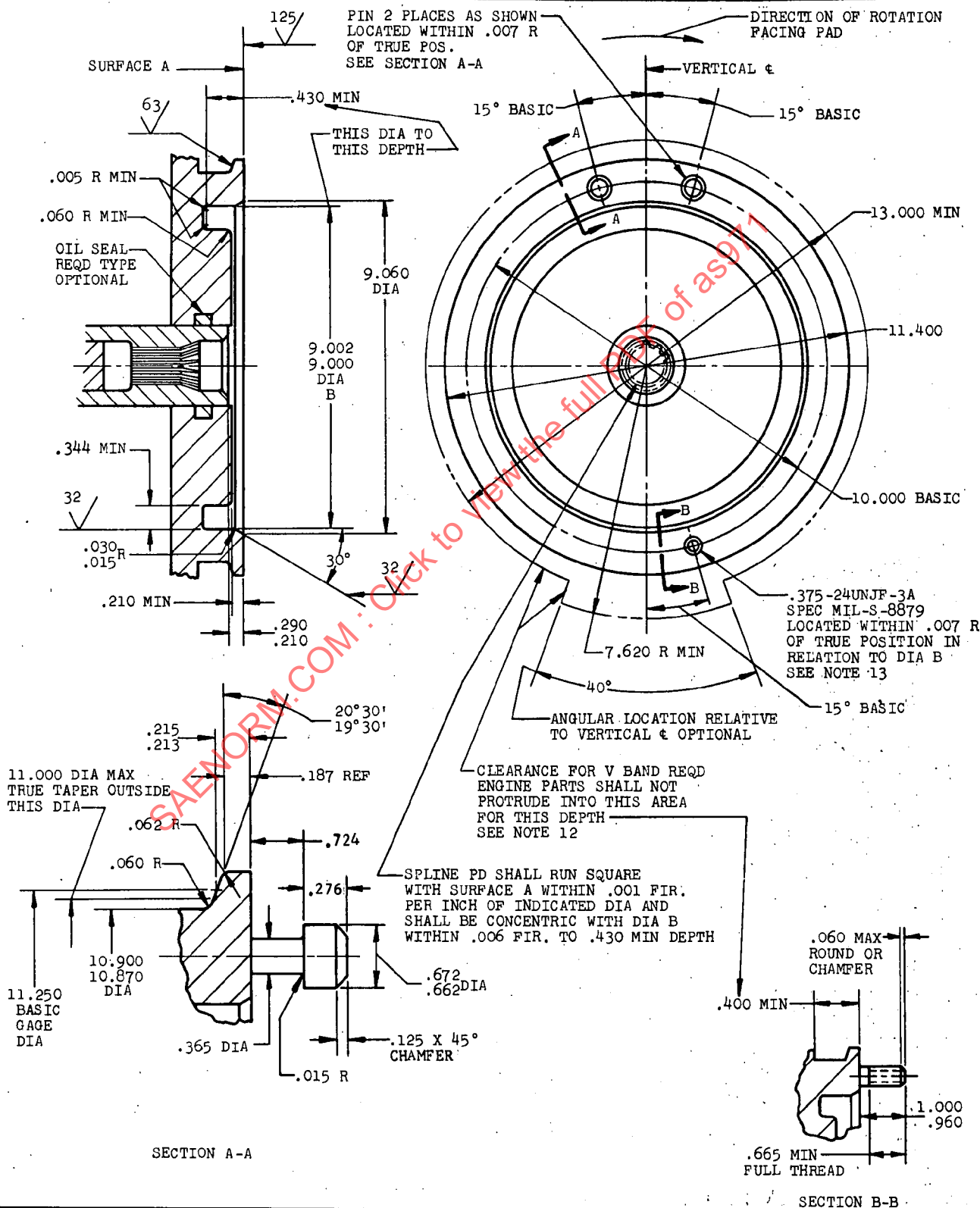
SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York, N. Y. 10017

Issued 10-31-67

Revised

DRIVE - ACCESSORY, 10.000 BC ROUND, QAD, DESIGN STANDARD FOR



SAE Technical Board rules provide that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."

VARIABLE SPEED (ELECTRICAL EQUIPMENT)					
DASH NO.	RATED POWER HP	RATED SPEED RPM $\pm 5\%$	SPLINE SIZE PD	ACCESSORY	
				WEIGHT LB MAX	STATIC OVERHUNG MOMENT LB IN. MAX
-1V	60	8000	1.200	135	1700
-2V	80	8000	1.200	150	2000
-3V	120	8000	1.625	175	2500
-4V	180	8000	1.625	225	3000
-5V	240	8000	1.625	275	3600

VARIABLE SPEED - CONSTANT TORQUE (FLUID POWER PUMPS)					
DASH NO.	RATED TORQUE LB IN.	RATED SPEED RPM $\pm 5\%$	SPLINE SIZE PD	ACCESSORY	
				WEIGHT LB MAX	STATIC OVERHUNG MOMENT LB IN. MAX
-1CT	4000	4000	1.625	125	600
-2CT	9000	4000	2.000	200	1200

CONSTANT SPEED DRIVE OUTPUT					
DASH NO.	RATED POWER HP	RATED SPEED RPM	SPLINE SIZE PD	ACCESSORY	
				WEIGHT LB MAX	STATIC OVERHUNG MOMENT LB IN. MAX
-1CS	45	6000	0.800	90	550
-2CS	65	6000	0.800	100	600
-3CS	95	6000	1.200	125	750
-4CS	140	6000	1.200	150	1100
-5CS	200	6000	1.200	175	1500
-6CS	45	8000	0.800	75	400
-7CS	65	8000	0.800	85	500
-8CS	95	8000	1.200	100	650
-9CS	140	8000	1.200	125	750
-10CS	200	8000	1.200	160	1200

1. SPEED: THE RATED SPEED OF THE TYPES V, CT AND CS DRIVES SHALL BE PROVIDED WHEN THE POWER SOURCE IS OPERATING AT THE HIGHEST STABILIZED SPEED AT ANY OPERATING CONDITION.
THE TOLERANCE OF THE RATED SPEED FOR THE CS DRIVES SHALL BE SPECIFIED IN THE APPLICABLE MODEL SPECIFICATION.
2. STRENGTH: THE TYPE V, CT, AND CS DRIVES SHALL BE CAPABLE OF DELIVERING RATED POWER OR TORQUE CONTINUOUSLY FROM GROUND IDLE TO MAX POWER SOURCE SPEED. THEY SHALL ALSO WITHSTAND AN INSTANTANEOUS TORQUE EQUIVALENT TO FIVE TIMES THE RATED POWER OR TORQUE AT ANY ENGINE SPEED WITHOUT PERMANENT DEFORMATION OR FAILURE. THESE TORQUE VALUES SHALL BE SPECIFIED IN THE APPLICABLE POWER SOURCE MODEL SPECIFICATION.
3. DRIVE SHAFT: DETAILS OF DRIVE SHAFT AND SPLINE DESIGN DATA ARE SHOWN ON AS972.
4. LUBRICATION: SPLINE LUBRICATION SHALL BE PROVIDED. TYPE OF LUBRICANT SHALL BE SPECIFIED IN THE APPLICABLE POWER SOURCE MODEL SPECIFICATION.
5. OIL LEAKAGE: OIL LEAKAGE OUT OF THE DRIVE SHALL NOT EXCEED 3 CC PER HOUR. PROVISIONS FOR DRAINING OIL FROM THE DRIVE CAVITY SHALL BE SUPPLIED.
6. COVER: AS3043 IS SUITABLE FOR THIS DRIVE.
7. ACCESSORY SPACE: SPACE AVAILABLE FOR ACCESSORIES SHALL BE SHOWN ON THE POWER SOURCE INSTALLATION DRAWING.
8. DIMENSIONS: ALL LINEAR DIMENSIONS ARE IN INCHES.
9. TOLERANCES: LINEAR $\pm .010$, ANGULAR $\pm 2^\circ$ UNLESS OTHERWISE SPECIFIED.
10. FINISH: BREAK SHARP EDGES .003-.015 UNLESS OTHERWISE SPECIFIED. SURFACE TEXTURE PER USAS B46.1-1962.
11. MATING FLANGE: SEE AS968 FOR DETAILS OF MATING ACCESSORY FLANGE.
12. COUPLING: SEE AS976 AND AS977 FOR DETAILS OF V BAND COUPLING.
13. STUDS: ONE OR MORE STUDS SHALL BE PROVIDED FOR TORQUE REACTION IN MOST ACCESSIBLE SEGMENT OF DRIVE FOR WRENCHING AS1050 NUT(S). LOCATION SHALL BE 30° INCREMENTS FROM LOCATION OF PINS AS SHOWN. IF SEGMENT OCCUPIED BY PINS IS ACCESSIBLE, STUDS MAY BE SUBSTITUTED FOR PINS.